

# TORREYA

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## VANISHING WILD FLOWERS

BY ELIZABETH G. BRITTON

A number of articles on this topic have been published this year. They have awakened the interest of many readers, caused much comment and discussion, and prompted investigation as to the reasons for this calamity, which, if it does actually come to pass, is as much to be deplored as the extermination of the buffalo, the seal or the beaver. As in the case of mammals and birds, greed and thoughtlessness combine to do the harm, and fashion and selfishness are the motives.

*The New York Tribune* of May 5th had the following article:

"Now that spring is really here, the picnicking parties are invading the woods north of the Harlem, and have begun the annual systematic destruction of a large proportion of all wild flowers within reach. The authorities of the Botanical Gardens are on the lookout for them, and within their own precincts will guard the blossoms as thoroughly as possible under a well planned system; but the rest of the Bronx will be at their mercy, and that means death to many a poor little plant. It is not that these ruthless explorers fail to appreciate the beauty of flowers—they "just love them," in all probability. The trouble arises from their ignorance of the extent of the damage they do, and from an utter inability to comprehend that a flower or anything in the vegetable world has rights which the lord of creation himself is bound to respect. Thanks to the picnickers and alleged botanists, the arbutus, loveliest of spring blossoms, has been almost exterminated in the Bronx region. Its delicate pink and white used once upon a time to hide under the leaves all through the northern woods in that part of the suburbs; now it may be found only in spots where it commands less enthusiastic admiration. The mountain laurel has shared a similar fate."

“The most curious feature of this destructive energy is that the plants and flowers so carelessly torn from their homes probably give little or no satisfaction to those who take them away with them. Is there, for instance, a more unsatisfactory flower to make attractive in a vase than the arbutus? It pines for its screen of leaves; the loveliness that seems so perfect when half hidden becomes quite inadequate when pulled out into the glare of the day and put down in a city room. The same is true of most other delicate wood plants. They depend upon the charm of their surroundings.” In *The House Beautiful*, July, 1901.

“Is there a flower lover who has gone out into the country with a party of young people unaccustomed to find themselves surrounded with green who has not noted with something very like hopeless rage the immediate rush on every growing thing in the neighborhood, its instant uprooting and subsequent careless tossing aside? Later in the day, before going home, when all the blossoms in the immediate neighborhood have been destroyed, there is a search for fresh fields, and another spot is denuded. A few dejected blossoms are all that is left when home is reached; nothing of any value remains out of all the lives butchered to make an East Side holiday. The saddest part of it is, not that the children do it, for that might be pardoned on the score of ignorance, but that those in authority permit it without a remonstrance.”

“The flower’s right to existence nobody takes into account, or the harm done to the children by allowing them to think that they may destroy life as they choose.”

And in this connection arises the question of public rights on private property. I know that less than fifty miles from New York, a man of wide and varied culture and sympathies, a member of a variety of horticultural and agricultural societies, owning a large tract of land away from any large town, has attempted to plant the waste roadside places and private woodland with wild and cultivated flowers, and repeatedly seen great bunches of them carried off by people, walking or driving by, who did not realize all the trouble and expense he had been to, in order to beautify the roadsides *for them* and *for others* who might come later. Many a prized Azalea bush has been rifled before its owner knew it, often thoughtlessly and without evil intention by those who “just love them.”

The destruction of wild flowers not only takes place while they are in bloom but there is another cause which is even worse than picking and that is fire. In early spring, March and April, when the woods are dry and high winds prevail, a match thrown carelessly among the dry leaves will start a fire which soon attains serious proportions and is often difficult to conquer, so that in a short time nothing remains but charred stems and scorched earth from which weeds only can derive sustenance. Fires often result, in the New York Botanical Garden, from the carelessness of smokers, and they always start near the paths.

The same selfish disregard of consequences impels picnic parties to come and scatter unsightly papers, boxes and broken glass, in spite of the fact that according to the city ordinances they are guilty of a misdemeanor and liable for each offence to a fine of from one to five dollars.

These evils are due to thoughtlessness and selfishness; now let us see what fashion is doing. In the July number of the *House Beautiful* occurs the following paragraph:

“The rarest flower in Europe, the edelweiss, is becoming scarcer every year, and unless measures are taken to prevent indiscriminate gathering it is likely to disappear altogether. The edelweiss only grows 2,500 or 3,000 yards above the level of the sea and under special climatic conditions. Unfortunately, the edelweiss has become the ‘fashionable’ flower in Germany since the Emperor commenced wearing it.”

The truth of the matter is that for commercial purposes, the wild supply of edelweiss has long been insufficient and for many years it has been impossible to gather it “indiscriminately,” for it is only to be found in the most inaccessible places. But it has long been cultivated for sale to tourists and makers of souvenirs. In fact, the edelweiss is not difficult to grow in suitable localities, and even in unsuitable ones for it, such as the New York Botanical Garden, it has grown and blossomed for two years in succession, in one of the Composite beds of the Herbaceous Grounds, next to its North American allies, the everlastings and cudweeds. The living plants were obtained from the Buffalo Botanical Garden, where it has also been grown, but a succession of hot, dry summers has killed it. In the shaded and moist rock-garden yet to be built it may probably be made to live.

It would be interesting to learn how many boxes of arbutus are annually mailed in the United States and how near extermination it is at the several stations where it was formerly abundant. We know that at Lakewood there is little of it left, and we hope that George Gould will protect it within the limits of his estate. It is the only way that certain rare plants and birds have been preserved in England, and we are rapidly finding such restrictions necessary. At Natural Bridge all persons are forbidden picking wild flowers. Various places have their fashionable favorites ; in the Berkshires it is the fringed gentian, in Boston the *Sabbatia*, at several places in Pennsylvania it is the *Rhododendron*, *Kalmia* and *Azalea*, and New York may well claim first place as destroyer of the Holly and *Prinos* berry. We may well ask, also, where will the Christmas trees and greens come from in the future, if they do not cultivate the balsams and spruces, and cease the reckless destruction of ground-pine and laurel. We are sending now to the southern states for most of the holly and mistletoe and to the states northeast of us for Christmas trees.

Before it became the fashion to use "Galaxy" for funeral wreaths, *Galax* was very abundant in the southern Alleghanies, but now that the leaves are picked by the crate-full, it is becoming more expensive. It is to be hoped that they do not "kill the goose that lays the golden egg."

The custom of filling jardinières with ferns has destroyed many pretty nooks in Bronx Park and is the cause of endless trouble, as the propensity to take them and ignore the signs, seems to be a prevalent feminine failing. None of our native ferns are particularly suited to this purpose, however, and invariably need frequent renewing, so that it would be easy to exterminate any one species very soon, if the depredations were permitted and continued. In the heat of summer nothing is more beautiful and restful than a fern bank ; but the sight will not be allowed to New-Yorkers if energetic folk who "must have green things about" have their way. Much care has been taken to transplant into suitably prepared nooks and crevices of the Fern corner, the rarer species and varieties of North American ferns and to surround them with beds of mosses and rocks and shade. The Walking-fern has been exceedingly difficult to establish. There are several stations for this fern within a radius of fifty miles from New

York City, but the stations are kept secret by those members of the "Torrey Botanical Club" who know them, for fear that it will be exterminated. This is the experience of a New England botanist who mourns about her losses in Rhodora for March. "We find the 'Walking-leaf'—to use Dr. Bigelow's English name for the *Camptosorus*—but a pretty habit that it has may be the death of it. Growing amongst mosses and other low plants that need but little depth of soil, and whose interlaced roots weave the whole together, it frequently carpets the flat tops of rocks—a beautiful sight which draws the attention even of idle picknickers who, not realizing that they are destroying years of growth, find it amusing to peel off these mats and then, without a pitying thought, throw them on the ground to die. Thus they have laid bare the rocks within sight of their walks; but away from the paths the interesting fern is still common."

In Connecticut the Hartford or Climbing fern was so nearly exterminated for decorative purposes that a law was passed protecting it. We hope that the newly-awakened popular interest in ferns will not lead to the same sad results, but rather cultivate the love of these beautiful plants and help to protect them.

The Natural Science Committee of the Associate Alumnae of the Normal College has been doing a good work, among the children of the East side, in distributing "Nature Material," holding flower-shows in various places and making "loan-collections" for the use of the teachers. We quote from the last Annual Report which reaches 1,500 members.

During the past year the Natural Science Committee has done all in its power to arouse greater interest in Nature Study, especially among the teachers and children of the public schools. With this object in view, the following lines of work have been carried on:

First, the distribution of "nature material" to the Alumnae School Representatives. There have been five of these distributions and the specimens have been as far as possible "according to season," that the children might come into touch with what was going on in the great world of nature, even though obliged to spend their days amid brick and mortar.

October 12, 1900. Fruits and seeds of all kinds, as well as some of the late flowers, as witch-hazel and fringed gentian.



December 7, 1900. Evergreens of many kinds, holly, ground-pine, etc.

January 16, 1901. Birds' nests, cocoons, starfish, sea-urchins, shells, minerals, etc.

February 28, 1901. Budding twigs in great variety, also mosses, lichens, fungi and sea-weeds.

April 16, 1901. Material for aquaria: frogspawn, tadpoles, snails and aquatic plants. A number of maple seedlings in paper pots were also distributed. In a number of instances barrels of labeled specimens have been sent direct to various down-town schools. "About twenty boxes and baskets were sent every week to the ten vacation schools."

"Through the distributions we reach the teachers, but by means of the flower shows we come into direct touch with the children. Last May the experiment was tried of holding a flower show in one of the down-town schools. It proved even more successful than we had anticipated and we hope to make this a permanent branch of our work, as it seems to be more far-reaching in its effects than anything else we undertake. The flowers are *enjoyed*, not only by the children of the school in which the exhibition is held, but by the neighboring schools which are invited to visit the show after school hours; the mothers of the children are asked to come, and if there chances to be a little leisure time the children from the street are invited in."

It is evident from the above quotations that such wholesale quantities as these must be judiciously selected, or there will be no wild flowers left within easy transportation of the city. One member is reported to have sent 150 *pitcher-plants* from a bog at Plymouth, Massachusetts! We question the wisdom of gathering either fringed gentians, pitcher-plants or christmas-fern, in quantities sufficient for distribution to seventy-five teachers, and we hope the pupils of country schools may be guided to make a wise selection, if they are encouraged to send flowers in quantities to the city schools.

The flowers which may be picked in large quantities, without likelihood of extermination are dandelions, violets, daisies, buttercups, black-eyed Susan, wild carrot, clovers, sweet melilot, golden-rod, asters, and grasses innumerable. But the rarer, dainty woodland wild flowers, that fade as soon as they are picked

such as spring-beauties, dogtooth-violets, bloodroot and hepaticas, columbines, anemone, arbutus and pyxie, azalea and laurel, wilk pinks, geraniums and roses and lilies and orchids, dogwood and viburnums, are far better left to reproduce their kind and add new loveliness in new places next year and for many years after. Several times since our connection with the New York Botanical Garden I have stopped children and teachers who were picking flowers or breaking branches of trees, and have been told it was for "nature study" or for "school" and when asked if they did not know it was against the rules of all public parks to pick anything, they almost invariably replied either that they had been in the habit of picking in this place before it became a Park or a Garden and did not see why they should not continue to do so; or they implied that the object for which they were to be used justified the breach of law. The making of loan collections for the teachers is an excellent plan, and the accumulation of local floras at two or three different educational institutions also will help them. For the children, there are the Museums of National History and Botany and the Children's Museum in Brooklyn, but we hope that besides these, we shall have for a long time yet, places near the city, where the wild flowers may be seen growing and that the children of the public schools may not only learn to "*know them by name and enjoy them,*" but *leave them* to continue their growth. The greatest destruction of all, comes from the draining, clearing and cultivating of wild lands; and in the vicinity of large cities, by the continued extension of their limits; this, of course, is unavoidable.

The Metropolitan Park Commission of Boston has printed a Flora of the parks within their jurisdiction, compiled by various local botanists who volunteered their services, organizing and coöperating for this purpose. It was published in 1896 and special localities were given for a number of rare plants, among them *Pogonia verticillata*, *Habenaria fimbriata*, *Epigaea repens*, *Kalmia latifolia* and *Conopholis Americana* and in the preface we find the following references to them: "The public should be exhorted, if they come across such plants as these, to preserve them rigidly. The true botanist and lover of nature needs no such exhortation."

It would be interesting to know, whether any injurious results

have followed its publication, or whether the Boston public has reached such a high degree of culture both moral and aesthetic that no one makes an exception even of himself?

But the climax has been reached in an advertisement which has been printed in *Rhodora*, the Journal of the New England Botanical Club, since May. It announces that on the Bangor and Aroostook Railroad, there is to be had the "best botanizing in the Eastern States," and proceeds to give the names of stations and lists of rare plants to the length of two whole pages. We ask with amazement, where did they get the information? What botanist sold his birthright for a few railroad passes? Fortunately, many of the plants listed are so rare that only the discriminating and trained botanical specialist will be sure to find them, and the general public will hunt a long time and not know them when they see them.

Mr. Redfield used to tell the story of Rafinesque that when he first found *Corema Conradii*, he threw himself down upon it and stretching out his arms, said "all that I cover is mine." It is not always the most enlightened who are the most unselfish. There have been botanists, even in the Torrey Club, who uprooted plants wantonly and made no good use of them after they were picked. But the custom of carrying "tin trunks" has been largely superseded by presses, and only a few duplicates are now made of each species.

The flora of Great Britain is, perhaps, the best known of any in the world; and there is more knowledge among the working people of special and difficult branches of botany, probably than in any other country, Germany not excepted. Dr. Braithwaite told me that he had sold a great many copies of the *British Moss-flora* to the Manchester weavers.

But many of their rarest plants have been exterminated by botanists, as shown by the following quotations taken from the *Journal of Botany* for July :

"The accuracy in general matters for which the *Daily Mail* has long been conspicuous, extends to its botanical information. We reproduce the most recent item in the hope that the publicity now given to the methods of the 'professional botanist' will cause him to abstain from this nefarious means of adding to his income.

"Four of the daintiest of English wild plants are rapidly dis-



appearing from this country, and one, at any rate, can rarely be seen outside Kew gardens. This is the *Cypripedium Calceolus* commonly known as the 'lady's slipper.' It is really a wild orchid, with a pretty yellow flower resembling in shape the article which has given it its popular name. The other vanishing plants are the *Osmunda regalis*, the *Scolopendrium vulgare* (hart's tongue), and the *Asplenium viride* (green spleenwort), all of which are ferns. Their disappearance is due to the depredations of the tourist, especially of the cyclist, and the professional botanist, who scours the woods and disposes of his 'finds' for a few pence in the streets of the nearest large town."—*Daily Mail*, June 26.

"There can, however, be little doubt that, apart from the ravages of 'professional botanists' and the destructive efforts of various local bodies, who throughout the country are engaged in destroying grassy roadsides and scarifying hedgebanks, to the great advantage of the nettles, docks and other weeds which take the place of the native vegetation, our British plants are threatened with a new danger."

"I have before me the programme of the Essex Technical Instruction Committee for Field Studies in Natural History. The course for 1901 is intended to instruct teachers in the elements of botany by means of rambles in search of wild flowers. One leading feature is a vacation course of ten days in the New Forest. The teachers are to be accompanied by local guides, and their attention is particularly directed to the rarest species, which are specially named, as well as the places in which they are known to grow. To collect, dry and identify plants is the chief aim of the leaders, who not only urge every teacher to make his own collection, but suggest that duplicate plants will prove useful for 'special fascicles.' It seems to me lamentable that teachers should be advised to study natural history by schedules, and to gather plants merely in order to name and dry them. I imagine that they will be worse and not better for working through so dry and barren a course. Nothing shows the want of judgment of the promoters more clearly than that untrained botanists should be seriously advised to pay particular attention to the difficult and uncertain subspecies of the common bramble. But all of us, whether we are concerned with the teaching of botany or not, have an interest in the preservation of

our native plants. The Essex Committee is simply organizing a raid upon plants which are already near to extinction. I hope that they will fail to discover the rarities which they selfishly covet; their enterprise is, I venture to say, an injury to natural history and to education alike. It may not be too late to get this programme cancelled, and I would beg those who care for live natural history to use their influence in diverting the attention of the Essex collectors to some other pursuit where they will do less harm."

## ON SCIRPUS ROBUSTUS PURSH AND CERTAIN OF ITS NEAR ALLIES

BY EUGENE P. BICKNELL

A recent article by Mr. M. L. Fernald in *Rhodora*, 2: 239 ("Representatives of *Scirpus maritimus* in America") brings to notice a common eastern bulrush hitherto concealed under the species *Scirpus robustus* Pursh.

Mr. Fernald's paper, of much interest in itself, was of particular interest to me for the reason that this same bulrush clearly announced itself to me in the field several years ago, when I was led over the same technical ground traversed by Mr. Fernald's more recent study, and to conclusions similar to but not identical with those there expressed.

Mr. Fernald's conclusion is that the new plant is related to *Scirpus robustus* as a variety, by which term I understand a state or condition of that species or a tendency of the plant, from whatever cause, to express itself in a particular form more or less divergent from the recognized type.

My own conclusions were that the plant was probably not a very remote derivative, or ancestor, of *Scirpus robustus*, but that the two plants had, nevertheless, reached a condition of organic separateness—of individualization—which could be rightly expressed only in terms of absolute distinctness at species. Here was a case, it seemed to me, one of many, indeed, where extremely close relationship would probably refuse to be transformed under any conditions of environment into actual organic identity.

Mr. Fernald finds this new eastern plant to be identical with the *Scirpus paludosus* A. Nelson from Wyoming. This being true I cannot doubt that the plant should continue to be known